

wrongful repudiation as determining the contract and sue for damages, or he may ignore or reject the attempt to determine the contract and affirm its continued existence".²⁹⁸

260. Chitty On Contracts also states:

"[a]n innocent party, faced by a repudiatory breach, is therefore given a choice: he can either treat the contract as continuing ("affirmation" of the contract) or he can bring it to an end ("acceptance of the repudiation"). He must "elect" or choose between these options ... An act of acceptance of a repudiation requires no particular form. It is usually done by communicating the decision to terminate to the party in default ... Unless and until the repudiation is accepted the contract continues in existence for "an unaccepted repudiation is a thing writ in water."²⁹⁹

261. For these reasons, the tribunal finds that when Devas sent its letter of 13 June 2013 it accepted Antrix's repudiatory breach of the Agreement, thereby terminating the agreement.

Does Article 7(b) apply to repudiatory breaches?

262. Devas' primary contention is that, as a matter of law, limitation of liability clauses do not apply to repudiatory breaches unless they refer to such breaches expressly.³⁰⁰ However, the way in which Devas developed that submission suggests that it also puts its case more broadly.³⁰¹ It appears to also submit that, even if limitation of liability clauses can (as a matter of law) apply to repudiatory breaches without referring to them expressly, Article 7(b) does not, when properly construed, apply to such breaches.

263. Antrix appears to have treated Devas as having made both of these (primary and alternative) submissions. Accordingly, the tribunal considers that it is appropriate that they are both addressed.

264. Both parties have referred the tribunal to numerous Indian and English authorities concerning the construction of limitation of liability clauses. Those authorities are relevant to the assessment of Devas' primary and alternative submissions. It is therefore convenient to consider those authorities before addressing its submissions.

Relevant authorities

265. The first Indian authority, which is relied on by Antrix,³⁰² is *Sir Chunilal V Mehta and Sons, Ltd v The Century Spinning and Manufacturing Co Ltd*³⁰³ (**Sir Chunilal**), a decision of the Supreme

²⁹⁸ At 799. See also at 805: "[w]hen A wrongfully repudiates his contractual obligations in anticipation of the time for their performance, he presents the innocent party B with two choices. He may either affirm the contract by treating it as still in force or he may treat it as finally and conclusively discharged."

²⁹⁹ H. G. Beale (ed.), Chitty on Contracts, Vol. I: General Principles (31st ed., Sweet & Maxwell 2012), pp. 1694, 1706, 1707.

³⁰⁰ Devas' PHM, [248].

³⁰¹ See, e.g., Devas' PHM at [241] – [267].

³⁰² Statement of Defence, [142]; Rejoinder, [128], [129]; Antrix's PHM, [95], [96]; Antrix's PHRM, [69], [73].

³⁰³ AIR1962SC1314.

Court of India from 1962. This case concerns the wrongful termination of an agency contract that contained a limitation of liability clause. The Supreme Court was required to determine whether the clause limited the agent's entitlement to damages. In reaching its decision, the Court stated (*inter alia*):

- a. "[w]here the parties have deliberately specified the amount of liquidated damages there can be no presumption that they, at the same time, intended to allow the party who has suffered by the breach to give a go-by to the sum specified and claim instead a sum of money which was not ascertained or ascertainable at the date of the breach",³⁰⁴ and
- b. the liquidated damages clause "does not expressly or by necessary implication keep alive the right to claim damages under the general law. By providing for compensation in express terms the right to claim damages under the general law is necessarily excluded and, therefore, in the face of that clause it is not open to the appellant to contend that that right is left unaffected."³⁰⁵

266. The second authority, which is relied on by Devas, is the more recent decision of the Supreme Court of India in *Steel Authority of India Limited v Gupta (SAIL v Gupta)*.³⁰⁶ The appellant in this case failed to deliver goods in accordance with the parties' contract, and sought damages for breach of the contract. The Court was required to determine whether its claim for damages was limited by a liquidated damages clause. The Court stated that:

"[t]he question that needs to be determined by us is whether the breaches alleged by the respondent are covered by the stipulations contained in Clause 7.2 [(the liquidated damages clause)]. If the answer is in the affirmative, obviously compensation cannot be awarded beyond what is provided therein. On the other hand, if breaches are not covered by Clause 7.2, cap provided therein with regard to liquidated damages will not be applicable at all".³⁰⁷

267. The Court answered that question by reference to the parties' intentions. It stated:

"[i]t is not a question of giving restrictive or wider meaning to Clause 7.2 but the question is what is intended by the parties by making a provision such as this and does such clause cover all situations of breaches by SAIL".³⁰⁸

³⁰⁴ At [16].

³⁰⁵ At [19].

³⁰⁶ (2009) 10 SCC 63.

³⁰⁷ At [20].

³⁰⁸ At [25]. See also [22], where the Supreme Court asked, "[c]an it be said that SAIL intended to provide for liquidated damages in the contract even in a situation where they were unable to make supply of materials for the reasons beyond control or they declined to supply the materials on one ground or the other."

268. In so far as identifying the parties' intentions was concerned, the Court stated:

"[i]t is well known that intention of the parties to an instrument has to be gathered from the terms thereof and that the contract must be construed having regard to the terms and conditions as well as nature thereof."³⁰⁹

269. The Court then performed that examination, and concluded:

"[c]lause 7.2 cannot be said to extend to all situations and all types of breaches. In substance and in form, the claim of damages by the respondent for the breaches of contract by SAIL is essentially distinct from the breaches contemplated by Clause 7.2."³¹⁰

270. Significantly, the Supreme Court noted that the appellant (which sought to rely on the liquidated damages clause) "strongly relied on" *Sir Chunilal*.³¹¹ However, having formed the view that the liquidated damages clause did not apply, the Court went on to state that *Sir Chunilal* had "no application to the fact situation of the present case".³¹² It thus affirmed the lower court's finding that "[t]he authority of law in *Chunilal v. Mehta* would have been applicable only if it was held that Clause 7.2 of the contract was applicable".³¹³

271. Accordingly, the Court appears to have considered that *Sir Chunilal* is not relevant to *whether* a limitation of liability or liquidated damages clause applies in any given case, but rather to the availability of general law damages *if* such a clause applies.³¹⁴ This tribunal has therefore treated *Sir Chunilal* in the same way.

272. The third Indian authority, also relied on by Devas, is *Pawan Alloys & Casting Pvt. Ltd., Meerut v. U.P. State Electricity Board and others*³¹⁵ (***Pawan Alloys***). This case concerned (inter alia) standard agreements for the supply of electricity by the U.P. Electricity Board (***the Board***) to industrial customers. The Board notified the customers that they would receive a 10% rebate on their electricity bills for three years from the date of commencement of supply. However, clause 7 of the contracts, which the Board subsequently required the customers to execute, stated:

"(a) The consumer shall pay for the supply of electric energy at the rates enforced by the supplier from time to time as may be applicable to the consumer.

(b) The rate schedule applicable to the consumer at the time of execution of this agreement is annexed hereto as Annexure 2.

³⁰⁹ At [23].

³¹⁰ At [26].

³¹¹ At [13].

³¹² At [30].

³¹³ At [14].

³¹⁴ At [30]. It thus affirmed the lower court's finding, referred to at [14], that "[t]he authority of law in *Chunilal v. Mehta* would have been applicable only if it was held that Clause 7.2 of the contract was applicable".

³¹⁵ (1997) 7 SCC 251.

(c) The rate schedule above mentioned, may, at the discretion of the supplier, be revised by the supplier from time to time.”

273. After the contracts were executed, the Board refused to provide the 10% rebate on electricity bills. The Supreme Court was required to consider (inter alia) whether clause 7 permitted it to do so. The Court stated:

“[i]t would be totally absurd and incongruous to suggest on behalf of the Board that on the one hand it guaranteed to the new industrial units for a period of three years from the date of commencement of supply 10% development rebate on the total amount of the bill and on the other hand the moment such supply started pursuant to the written agreement the very incentive could be withdrawn by it from its inception as a new industrial unit had to sign a written agreement containing clause 7(a), (b) and (c). If that submission on behalf of the Board which appealed to the High Court is accepted a most incongruous, unreasonable and absurd result would follow.”³¹⁶

274. The Court went on to state that:

“[i]t is also easy to visualize that a new industrial unit which spends large amounts for establishing its infrastructure and gets lured in the light of the representation held out by the Board and establishes its plant and machinery in the new unit, would not simultaneously and voluntarily agree by signing such an agreement with the Board to give up the very same benefit of incentive by permitting the latter to withdraw it at any time it likes. That would be doing violence to common sense and business approach of an ordinary prudent businessman. No businessman in his senses would ever agree voluntarily to such an absurd, incongruous and inconsistent predicament.”³¹⁷

275. The first relevant English authority is *Stocznia Gdynia S.A. v. Gearbulk Holdings Ltd*³¹⁸ (*Gearbulk*), a decision of the English Court of Appeal from 2009 that is relied on by Devas. This case concerned contracts for the construction and delivery of six vessels. The respondent, a ship building yard, failed to deliver the vessels. The Court of Appeal considered whether it was entitled to rely on a limitation of liability provision. The Court held that it was not. In reaching that conclusion, Moore Bick LJ (with whom Ward and Smith LLJ agreed) made the following statement, on which Devas relies:

“[t]he court is unlikely to be satisfied that a party to a contract has abandoned valuable rights arising by operation of law unless the terms of the contract make it sufficiently clear that that was intended. The more valuable the right, the clearer the language will need to be”.³¹⁹

³¹⁶ At [54].

³¹⁷ At [54].

³¹⁸ [2009] EWCA (Civ) 75.

³¹⁹ At [23].

276. The second English case is *Internet Broadcasting Corporation Ltd (trading as NETTV) and another v MAR LLC (trading as MARHedge) (Internet Broadcasting)*,³²⁰ a decision of the High Court (Gabriel Moss QC sitting as a Deputy High Court Judge) in which the defendant was found to have committed a "deliberate, repudiatory breach". The Court considered whether a limitation of liability clause applied in light of that breach, and set out a series of principles concerning whether limitation of liability clauses apply to repudiatory breaches. It stated:

"[t]he principles I deduce from the authorities which are relevant to the present type of case of deliberate, repudiatory breach involving personal wrongdoing are as follows. (1) There is no rule of law applicable and the question is one of construction. (2) There is a presumption, which appears to be a strong presumption, against the exemption clause being construed so as to cover deliberate, repudiatory breach. (3) The words needed to cover a deliberate, repudiatory breach need to be very 'clear' in the sense of using 'strong' language such as 'under no circumstances'. (4) There is a particular need to use 'clear', in the sense of 'strong', language where the exemption clause is intended to cover deliberate wrongdoing by a party in respect of a breach which cannot, or is unlikely to be, covered by insurance. Language such as 'including deliberate repudiatory acts by [the parties to the contract] themselves' would need to be used in such a case. (5) Words which, in a literal sense, cover a deliberate repudiatory breach will not be construed so as to do so if that would defeat the 'main object' of the contract. (6) The proper function between commercial parties at arm's length and with equal bargaining power of an exemption clause is to allocate insurable risk, so that an exemption clause should not normally be construed in such cases so as to cover an uninsurable risk or one very unlikely to be capable of being insured, in particular deliberate wrongdoing by a party to the contract itself (as opposed to vicarious liability for others). (7) Words which in a literal sense cover a deliberate repudiatory breach cannot be relied upon if they are 'repugnant' have not dealt with this in detail because it is not relevant to this case."³²¹

277. Devas places substantial weight on this decision.³²² Antrix, on the other hand, submits that it is not good law and effectively (and erroneously) seeks to revive the doctrine of fundamental breach (i.e. the now overruled doctrine that limitation of liability clauses cannot be relied on by parties that repudiate their contractual obligations).³²³
278. In support of this submission Antrix relies to two decisions of Flaux J in the High Court. The first is *Astrazeneca UK Ltd v Albemarle International Corp & Anor*.³²⁴ In this case, Flaux J stated:

³²⁰ (2009) EWHC 844 (Ch).

³²¹ At [33].

³²² See, e.g., Statement of Claim, [276]; Reply, [165]; Devas' Skeleton, [122]; Devas' PHM, [246]; Devas' PHRM, footnote 104.

³²³ See, e.g., Statement of Defence, [145] – [149]; Devas' Skeleton, [67]; Antrix's PHM, [89] – [91].

³²⁴ [2011] EWHC 1574 (Comm).

"[w]ith the greatest respect to the learned Deputy Judge [*in Internet Broadcasting*], in my judgment, this conclusion is wrong on the modern authorities and effectively seeks to revive the doctrine of fundamental breach (which the House of Lords in both *Suisse Atlantique Societe d'Armement Maritime v NV Rotterdamsche Kolen Centrale* [1967] 1 AC 361 and *Photo Production v Securicor* [1980] 1 AC 827 concluded was no longer good law), albeit under the guise of 'deliberate repudiatory breach'

...

"In my judgment, the judgment in *MARHedge* [(i.e. *Internet Broadcasting*)] is heterodox and regressive and does not properly represent the current state of English law. If necessary, I would decline to follow it. Even if the breach ... had been a deliberate repudiatory breach ... the question whether any liability ... for that breach was limited by clause M would simply be one of construing the clause, albeit strictly, but without any presumption."³²⁵

279. The second is *Shared Network Services Limited v Nextira One UK Limited*³²⁶ (***Shared Network***). In this case, Flaux J rejected a submission that a limitation of liability clause did not apply to a repudiatory breach of the relevant contract.³²⁷ The decision does not add anything material to what Flaux J stated in *Shared Network*, save that leave to appeal was granted by Lord Justice Lewison who, in granting leave, stated that:

"I consider that Flaux J was right, and that the appeal does not have a real prospect of success, [but] the point is an important one and the conflict of authority should be resolved by the Court of Appeal."³²⁸

280. Ultimately, however, security for costs was ordered³²⁹ and not provided, so the appeal was dismissed.³³⁰

³²⁵ At [289] and [301].

³²⁶ [2011] EWHC 3845 (Comm).

³²⁷ At [11], [12].

³²⁸ This is noted in the decision on security for costs. See *Shared Network Services Limited v Nextira One UK Limited* [2012] EWCA Civ 1171 at [2].

³²⁹ *Shared Network Services Limited v Nextira One UK Limited* [2012] EWCA Civ 1171.

³³⁰ *Shared Network Services Limited v Nextira One UK Limited*, Court of Appeal, Order, 11 September 2012.

281. The final case, also relied on by Devas and a more recent decision of the Court of Appeal, is *Kudos Catering (UK) Limited v Manchester Central Convention Complex Limited* [2012] EWHC 1192 (QB) (*Kudos Catering*).³³¹ This case also concerns the question of whether damages were recoverable for a repudiatory breach in circumstances where there was a relevant limitation of liability clause. The clause stated:

“[t]he Contractor hereby acknowledges and agrees that the Company shall have no liability whatsoever in contract, tort (including negligence) or otherwise for any loss of goodwill, business, revenue or profits”.

282. Tomlinson LJ (with whose judgment McCombe and Laws LLJ agreed) conducted a helpful survey of authorities concerning the principles that apply to the construction of exclusion clauses. The principles that his Lordship referred to include the following:

- a. an exception clause must “reflect the contemplation of the parties that a breach of contract, or what apart from the clause would be a breach of contract, may be committed, otherwise the clause would not be there; but the question remains open in any case whether there is a limit to the type of breach which they have in mind”;³³²
- b. “[t]he exercise of construction is essentially one unitary exercise in which the court must consider the language used and ascertain what a reasonable person, that is a person who has all the background knowledge which would have reasonably been available to the parties in the situation in which they were at the time of the contract, would have understood the parties to have meant. In doing so, the court must have regard to all the relevant surrounding circumstances. If there are two possible constructions, the court is entitled to prefer the construction which is consistent with business common sense and to reject the other”;³³³ and
- c. “one can[not] rewrite the language which the parties have used in order to make the contract conform to business common sense. But language is a very flexible instrument and, if it is capable of more than one construction, one chooses that which seems most likely to give effect to the commercial purpose of the agreement”.³³⁴

283. Tomlinson LJ also stated that:

“[t]here also in my view comes into play the presumption that neither party to a contract intends to abandon any remedies for its breach arising by operation of law - see per Lord Diplock in *Modern Engineering v Gilbert-Ash* [1974] AC 689 at 717. Lord Diplock went

³³¹ See Devas’ PHM, [233].

³³² At [19], citing *Suisse Atlantique Société d’Armement Maritime S.A. v. N.V. Rotterdamsche Koren Centrale* [1967] 1 AC 361 per Lord Wilberforce.

³³³ At [21], citing *Rainy Sky SA v Kookmin Bank* that [2011] 1 WLR 2900 at [21] (per Lord Clarke of Stone cum Ebony).

³³⁴ At [21], citing *Antaios Compania Naviera SA v Salen Rederierna AB (The Antaios No 2)* [1985] AC 191 at 431 - 432 (per Hoffman LJ).

on to say that clear words must be used to rebut this presumption and the judge plainly thought that the words here used were sufficiently clear for that purpose. The judge should not in my view have reached that conclusion without first examining the context.”³³⁵

284. After examining the relevant context, Tomlinson LJ found that this clause did not prevent the “Contractor” from recovering damages for the “Company’s” repudiatory breach. His Lordship stated that:

“if the judge’s construction of Clause 18.6 is adopted, [it is] effectively devoid of contractual content since there is no sanction for non-performance by the Respondent. It is inherently unlikely that the parties intended the clause to have this effect.”³³⁶

285. Importantly, Tomlinson LJ also stated that in his view, the trial judge “fell into error in thinking that the ascertainment of the meaning of apparently clear words is not itself a process of contractual construction.”³³⁷ According to Tomlinson LJ, the trial judge:

“thought that the only words relevant to his task of construction were those words from Clause 18.6 of the Agreement ... The judge did not, at any rate overtly, look at those words either in the context of the clause in which they appeared or in the context of the contract as a whole”.³³⁸

Is it necessary for limitation of liability clauses to refer to repudiatory breaches expressly?

286. In light of these authorities, the tribunal does not accept Devas’ submission that, as a matter of law, limitation of liability clauses do not apply to repudiatory breaches unless they refer to such breaches expressly. None of the cases referred to above support that proposition, including *Internet Broadcasting*. The Court in *Internet Broadcasting* went as far as saying that “[t]here is a particular need to use ‘clear’, in the sense of ‘strong’, language where the exemption clause is intended to cover deliberate wrongdoing”, but it did not say that an express reference to repudiation was required.
287. In any event, *Internet Broadcasting* has been subject to considerable criticism in other decisions of the High Court and has not, to the tribunal’s knowledge, been followed by any superior court. In light of Lord Justice Lewison’s comments in *Shared Network* the tribunal has serious doubts about whether it will be followed. Further, it is not an Indian decision so can be no more than persuasive for the purpose of this arbitration. Given the criticism it has received, the tribunal does not find it persuasive.
288. Accordingly, the tribunal considers that limitation of liability clauses can, as a matter of law, apply to repudiatory breaches even if they do not refer to repudiation expressly.

³³⁵ At [21].

³³⁶ At [19].

³³⁷ At [22].

³³⁸ At [14].

Properly construed, does Article 7(b) apply to repudiatory breaches?

289. Of course whether a limitation of liability clause applies to repudiatory breaches is a different question, which depends on the proper construction of the relevant clause. Before considering Devas' alternative submission it is therefore convenient to identify the key principles concerning the construction of limitation of liability clauses that emerge from the authorities referred to above. In the tribunal's view, they are as follows:
- a. whether a limitation of liability clause applies is to be determined by reference to the parties' intentions;³³⁹
 - b. those intentions are to be determined by reference to the terms and conditions of the contract as a whole, as well as the nature of the contract, and not just the words used in the clause itself.³⁴⁰ The parties' intentions may also be determined by reference to the perspective of "a businessman in his senses";³⁴¹
 - c. if there are two possible constructions, the court is entitled to prefer the construction which is consistent with business common sense or the commercial purpose of the agreement.³⁴² Constructions that would result in an absurd, incongruous and inconsistent predicament should be avoided;³⁴³ and
 - d. it may be presumed that neither party to a contract intends to abandon any remedies for its breach arising by operation of law. Clear words must be used to rebut this presumption.³⁴⁴
290. Applying those principles to the construction of Article 7(b), the starting point is a presumption that Devas did not intend to abandon its common law right to damages.
291. Next, it is necessary to examine relevant provisions of the Devas Agreement to determine whether the parties both intended for it to abandon that right. The first provision to examine is Article 7(b) itself. As noted above, Article 7(b) states that:

"DEVAS may terminate this Agreement at any time if ANTRIX is in material breach of any provisions of this Agreement and ANTRIX has failed to cure the breach within three months after receiving notice from DEVAS setting out the nature of breach and reasons for considering the same as material breach. In such event, ANTRIX shall immediately reimburse DEVAS all the Upfront Capacity Reservation Fees and corresponding taxes if applicable, received by ANTRIX till that date. Upon such termination, neither Party shall

³³⁹ See *SAIL v Gupta*, referred to at [266] – [270] above.

³⁴⁰ See *SAIL v Gupta*, referred to at [266] – [270] above.

³⁴¹ See *Pawan Alloys*, referred to at [272] – [274] above.

³⁴² See *Kudos Catering*, referred to at [281] – [285] above.

³⁴³ See *Pawan Alloys*, referred to at [272] – [274] above.

³⁴⁴ See *Kudos Catering*, referred to at [281] – [285] above.

have any further obligation to the other Party under this Agreement nor be liable to pay any sum as compensation or damages (by whatever name called)."

292. Notably, Article 7(b) states that it applies to "material breaches" of the agreement. In the tribunal's view, the plain meaning of the term "material breach" includes repudiatory breaches. This suggests that Article 7(b) was intended to apply to repudiatory breaches.
293. However, Article 7(b) also provides that, if Antrix does commit a material breach, Devas is not entitled to terminate the agreement unless or until it gives Antrix notice of and three months to cure the breach. This is significant because it presumes that the breach is capable of being cured. Accordingly, it suggests that the "material breaches" that the parties had in contemplation when they agreed to Article 7(b) were breaches that Antrix was capable of remedying. Antrix has (in substance) acknowledged that it was not capable of remedying its repudiation of the Devas Agreement.³⁴⁵
294. It is also relevant that repudiatory breaches are incapable of being "cured". That is to say, once a repudiatory breach has been committed, the party in breach is not able to cure that breach so as to deny the innocent party the right to either elect to terminate or affirm that agreement. The English Court of Appeal considered this issue in *Buckland v Bournemouth University Higher Education Corporation*.³⁴⁶ Sedley LJ (with whom Carnwath LJ agreed) stated that "no case holds that a repudiatory breach can be cured unilaterally by the party in default"³⁴⁷ and that "[i]t is common ground that no decided case holds in terms that a repudiatory breach, once complete (that is, not a merely anticipatory breach), is capable of being remedied so as to preclude acceptance."³⁴⁸ In the tribunal's view, this also suggests that Article 7(b) was not intended to apply to repudiatory breaches.
295. So too does Article 13 of the agreement – at least in so far as repudiatory breaches that render performance of the agreement impossible are concerned. Article 13 contains a series of broad indemnities. Article 13(a) states:

"[e]ither of the Parties (ANTRIX or DEVAS) shall indemnify, defend and hold harmless the other Party, its officers, directors, employees, agents, consultants from and against any loss, damages, liabilities, expenses, claims, actions, charges, costs, interests, and

³⁴⁵ Antrix says that performance of its obligations became impossible once the CCS had decided to annul the agreement: see, e.g., Antrix's PHM, [51].

³⁴⁶ [2010] 4 All ER 186.

³⁴⁷ At [38].

³⁴⁸ At [36]. His Lordship went on to state "the alternative courses which may be taken in response to a repudiatory breach leave no space for repentance by a party which has not simply threatened a fundamental breach or forewarned the other party of it but has crossed the Rubicon by committing it. From that point all the cards are in the hand of the wronged party: the defaulting party cannot choose to retreat. What it can do is invite affirmation by making amends": at [40]. Jacob LJ similarly held that "a repudiatory breach of contract, once it has happened, cannot be 'cured' by the contract breaker" (at [52]). He also said (at [53]) that "[t]hat has been the common law rule for all kinds of contract for centuries. It works. It spells out clearly to parties to contracts that if they actually commit a repudiatory breach, then whether the contract continues is completely out of their hands. The rule itself discourages repudiatory breach".

penalties suffered by the indemnified Party together with the attorney's fees, arising from the fault of the indemnifying Party."

296. There is, however, an important limitation on these indemnities. Article 13(e) states:

"[t]he right of either Party under this clause shall be in addition to the right to damages or any other rights available at common law or equity in respect of any breach of the warranties, representations and undertakings of the other Party. Provided however, that no right or claim of any nature whatsoever shall arise by virtue of or under this clause, for matters specifically provided for elsewhere in this agreement including matters relating to termination of this agreement".

297. Thus, the indemnities in Article 13(a) only apply in circumstances where Article 7 does not apply. Accordingly, if Antrix breaches the Devas Agreement, Devas is entitled to be indemnified against all loss and damage that it suffers due to that breach, but only so long as it does not terminate the agreement pursuant to Article 7. If it does terminate the agreement pursuant to Article 7, it is only entitled to refund of the UCRF (being moneys that it had previously paid to Antrix).

298. In other words, if Antrix commits a material breach of the agreement (that it fails to cure), Devas has two options:

- a. it can keep the agreement on foot and be completely compensated for any loss and damage that it suffers; or
- b. it can terminate the agreement, and forfeit its entitlement to compensation for any loss and damage that it suffers.

299. In the tribunal's view, this is very important to the construction of Article 7(b). It suggests that the parties intended to create a clear and strong incentive for Devas to keep the agreement on foot rather than terminating it. There is obvious commercial logic to creating such an incentive: it means that both parties are more likely to enjoy the anticipated benefits of the contract for the full life of the contract, even if breaches occur from time to time.

300. However, it also suggests that the parties intended that Devas would only forfeit its entitlement to full compensation if, when faced with the option of either keeping the agreement on foot or terminating the agreement, it chose to terminate the agreement. This, in turn, suggests that Article 7(b) was only intended to apply if Devas genuinely had such an option – i.e. that it was not intended to apply if, as a result of Antrix's breach, the contract was incapable of being performed.

301. Indeed, as Devas has submitted, "[w]ere Article 7 a comprehensive code capping liability for any manner of deliberate breach rising to the level of repudiation, then Article 13 would not make sense".³⁴⁹ There would be no commercial logic in the parties agreeing that:

- a. on the one hand, Antrix must indemnify Devas for any and all loss or damage that Devas suffers if it does not terminate the agreement; and

³⁴⁹ Devas' PHM, [252].

- b. on the other, Antrix has *carte blanche* to cease performing its obligations under the agreement, thereby depriving Devas of any meaningful choice about whether the contract should be brought to an end, and avoiding any obligation to compensate Devas for losses that it causes Devas to incur.
302. In the words of the Supreme Court in *Pawan Alloys*, “[n]o businessman in his senses would ever agree voluntarily to such an absurd, incongruous and inconsistent predicament.”
303. The following example also highlights the absurdity of construing Article 7(b) so that it limits Devas’ entitlement to damages in circumstances where the contract is incapable of being performed. If Devas had not sent its letter of 13 June 2013, and had therefore not formally terminated the Devas Agreement, the agreement would remain on foot, and Article 7(b) could not apply. Devas would therefore have retained a right to be compensated for all of its loss or damage.
304. Such an outcome would, in the tribunal’s view, be nonsensical. It would mean that Devas’ right to damages would be extinguished simply because Devas formally brought to an end a commercial relationship that had, for all practical purposes, ended more than two years earlier.
305. Article 21 is also relevant. As noted above, Article 21 of the agreement sets out the parties’ “good faith” obligations. It states not only that the parties “intend to discharge their obligations in utmost good faith” and “will, at all times, act in good faith”, but also that they will “make all attempts to resolve all differences howsoever arising out of or in connection with this Agreement by discussion”.³⁵⁰ It therefore obliges the parties to seek to resolve disputes and differences between them, in good faith, rather than terminating the agreement.
306. This suggests that the parties’ intention was to ensure that they did not terminate the agreement in the event of any breach of or disputes concerning the agreement. Rather, the parties were to “make all attempts” to resolve their differences and ensure that the agreement remained on foot. Construing Article 7(b) so that it permitted Antrix to refuse to perform the agreement at will, without discussion or negotiations with Devas, and without incurring any liability for Devas’ loss or damage, would be entirely contrary to that intention.

Conclusion

307. For the foregoing reasons, the tribunal considers that the parties cannot have intended Article 7(b) to apply to repudiatory breaches, at least in so far as they rendered future performance of the agreement impossible. Accordingly, Article 7(b) does not limit Devas’ entitlement to damages that it suffered by reason of Antrix’s repudiation of the Devas Agreement.

Evidence concerning the parties’ pre-contractual negotiations

308. The tribunal notes that, in reaching this conclusion, it has not relied on any evidence of the parties’ pre-contractual negotiations. This is because Article 9.1 of the IBA Rules states that

³⁵⁰ Article 21.

"[t]he Arbitral Tribunal shall determine the admissibility, relevance, materiality and weight of evidence", and in the tribunal's view, pre-contractual negotiations are generally an unreliable guide to the meaning of a contract and should not be given any weight. They tend to reflect parties' desires and negotiating positions, not their concluded agreement following necessary compromises. Where the meaning of the contract is sufficiently clear, evidence of pre-contractual negotiations should therefore be avoided. For the reasons set out above, the tribunal considers that the meaning of Article 7(b) is sufficiently clear.

309. The tribunal notes, however, that even if it had placed weight on evidence of pre-contractual negotiations, it would have reached the same conclusion. The evidence that Antrix relies on suggests that, during negotiations, Devas:

- a. first proposed provisions to the effect that, if Devas terminated the agreement "for cause", it would receive substantial liquidated damages;³⁵¹ and
- b. later proposed a provision to the effect that, if Devas terminated the agreement (for any reason) it would be entitled to all remedies that were available at common law.³⁵²

310. Evidently Antrix did not agree to either of these proposals. However, that is consistent with the tribunal's conclusion regarding the intended operation of Article 7(b). It suggests that Antrix persuaded Devas that, if Antrix committed a material breach, Devas should not be entitled to both an indemnity (if the agreement remained on foot) and substantial liquidated damages (if Devas chose to terminate rather than perform the agreement). It suggests that the compromise that was reached was that Devas would forfeit its right to compensation if, but only if, when faced with the option of either performing the agreement or terminating it, Devas elected to terminate it. It does not suggest that Devas agreed to forfeit its right to compensation in the event that Antrix's breach was such that future performance of the agreement would be impossible.

Was it necessary for Devas to give notice of Antrix's breach and give Antrix the opportunity to cure that breach?

311. In light of this conclusion, the tribunal does not consider that it is necessary or desirable to address Devas' submission that Article 7(b) does not apply unless Devas (a) put Antrix on written notice that Devas believed Antrix was in material breach and (b) give Antrix the opportunity to cure that breach within three months.

G. Damages

312. For the foregoing reasons the tribunal has concluded that Antrix wrongfully repudiated the Devas Agreement and that the limitation of liability provision in Article 7(b) of the Agreement does not apply. It is therefore necessary to consider what damages, if any, Devas is entitled to receive from Antrix as a result of Antrix's wrongful repudiation under Indian law as the applicable law.

³⁵¹ Exhibit R-10; Exhibit R-9

³⁵² Exhibit R-14.

313. According to Devas it suffered substantial loss or damage. Devas says that its entire business became unviable due to Antrix's repudiation³⁵³ and that its business was, at the time of the repudiation (25 February 2011), worth USD 1.41 billion.³⁵⁴ As a result, it says that it is entitled to that sum in damages, plus interest.
314. Antrix, on the other hand, says that Devas should not receive any damages. It does not dispute that Devas' business became unviable due to Devas' loss of the Devas Agreement, but (assuming Antrix's wrongful repudiation of the agreement) Antrix says that the quantum of Devas' loss or damage is wholly speculative and therefore not recoverable.³⁵⁵ It also says that the DCF methodology is an inappropriate vehicle for assessing Devas' loss or damage given (inter alia) Devas' lack of earnings history, and that even if the tribunal does rely on the DCF methodology, Mr Kaczmarek's application of that methodology is erroneous and should not be relied on. Antrix says that its experts, Mr Brailovsky and Dr Flores, have shown that when Mr Kaczmarek's errors are corrected the DCF methodology suggests that Devas had *negative* value.
315. Before considering the parties' submissions the tribunal will identify the principles that govern the assessment of damages in this case.

Relevant principles

316. Under Indian law, Devas is entitled to compensation for any losses that it suffered due to Antrix's wrongful repudiation of the Devas Agreement. Section 74 of the Indian Contract Act 1872, codifying the common law, states:

"[w]hen a contract has been broken, the party who suffers by such breach is entitled to receive, from the party who has broken the contract, compensation for any loss or damage caused to him thereby, which naturally arose in the usual course of things from such breach, or which the parties knew, when they made the contract, to be likely to result from the breach of it."

317. Devas accepts that it bears the legal burden of proving its loss or damage. However, it submits that the legal standard of proof required to discharge that burden is different for determining the *cause* of any loss or damage (on the one hand) and the *quantum* of any loss or damage (on the other). It relies on the following passage from *Lemire v Ukraine*:³⁵⁶

"it is a commonly accepted standard for awarding forward looking compensation that damages must not be speculative or uncertain, but proved with reasonable certainty; the level of certainty is unlikely, however, to be the same with respect to the conclusion that damages have been caused, and the precise quantification of such damages. Once causation has been established, and it has been proven that the *in bonis* party has

³⁵³ Devas' PHM, [274].

³⁵⁴ Devas' PHRM, [93].

³⁵⁵ Defence, [161].

³⁵⁶ *Lemire v. Ukraine*, ARB/06/18 (ICSID 2011).

indeed suffered a loss, less certainty is required in proof of the actual amount of damages; for this latter determination Claimant only needs to provide a basis upon which the Tribunal can, with reasonable confidence, estimate the extent of the loss.”³⁵⁷

318. The tribunal does not accept that a different legal standard of proof can apply to the assessment of causation of damage (on the one hand) and the quantum of damage (on the other). For a civil claim under Indian law, as also at common law generally, whether loss or damage is caused by a particular breach of contract is always determined on the balance of probabilities. So too, in the tribunal’s view, is the amount of quantum in this case.

319. As was decided in regard to fraud, Lord Hoffmann stated in *Home Secretary v Rehman* [2003] 1 AC 153:

“[b]y way of preliminary I feel bound to say that I think that a ‘high civil balance of probabilities’ is an unfortunate mixed metaphor. The civil standard of proof always means more likely than not. The only higher degree of probability required by the law is the criminal standard. But, as Lord Nicholls of Birkenhead explained in *In Re H* [1996] AC 563, 586, some things are inherently more likely than others. It would need more cogent evidence to satisfy one that the creature seen walking in Regent’s Park was more likely than not to have been a lioness than to be satisfied to the same standard of probability that it was an Alsatian. On this basis, cogent evidence is generally required to satisfy a civil tribunal that a person has been fraudulent or behaved in some other reprehensible manner. But the question is always whether the tribunal thinks it more probable than not.”³⁵⁸

320. Applied to the present case, the point is self-evident: the legal test for quantum, as for liability (including causation) is the balance of probabilities, tempered by common sense in regard to the relative cogency of the evidence.

321. There are certain other related factors raised by the parties’ respective cases which merit deciding here at the outset. First, the quantum of a party’s loss or damage often depends on what would have happened in a hypothetical counterfactual world where the relevant breach did not take place. The nature of that hypothetical world is often uncertain, which can make determining the quantum of damage on the balance of probabilities extremely difficult. This will be so when much of the hypothesis depends upon unknown or future events. Where that is the case, the court or tribunal is not relieved of its mandate to ensure that the wrongdoer compensates the innocent party for the wrongful conduct. As was long ago decided in *Chaplin v Hicks*, by the English Court of Appeal (under the common law and now forming part of Indian law): “[t]he fact that damages cannot be assessed with certainty does not relieve the wrongdoer

³⁵⁷ At [246].

³⁵⁸ At, [55], pp. 193-194.

of the necessity of paying damages”.³⁵⁹ Rather, as was later confirmed in *Biggin v Permanite*, the court or tribunal must do the “best that it can” based on the available evidence.³⁶⁰ The Tribunal adopts this same approach in the present case. However difficult, the tribunal must do “the best it can” in deciding upon a specific figure for damages on the evidence adduced in this arbitration, bearing in mind the legal standard of proof (the balance of probabilities), the legal burden of proof (resting on Devas as the claimant) and common-sense. The tribunal is not entitled to engage in mere guesswork; and it is not authorised to act “ex aequo et bono” or as an “amiable compositeur” under the ICC Rules. Nor does it.

322. Second, as to common sense, the wrongdoer cannot take unfair advantage of the factual uncertainties for which its own wrong is responsible. For example, at common law, under the rule in *Armory v Delamirie* (1722) 93 ER 664, the evidential burden of proof (but not the legal burden) may shift from the plaintiff to the defendant where the defendant’s wrongdoing has made it impossible for the plaintiff to prove its case on quantum. In that famous case, where the young chimney-sweep was claiming the value of his purloined jewel, it was decided that:

“[a]s to the value of the jewel several of the trade were examined to prove what a jewel of the finest water that would fit the socket would be worth; and the Chief Justice directed the jury, that unless the defendant did produce the jewel, and shew it not to be of the finest water, they should presume the strongest against him, and make the value of the best jewels the measure of their damages: which they accordingly did”.

323. That was an extreme case; and the tribunal does not consider it necessary to go that far in the present case. However, as appears below, the tribunal does not hold against Devas the difficulties in proving the quantum of its claim with mathematical precision where those difficulties resulted directly from the wrongful repudiation committed by Antrix.
324. Third, quantum is here essentially a question of fact, dependent upon factual evidence. Whilst expert evidence is often very useful in a complicated or difficult case, expert witnesses are not the triers of fact. They bring an expertise in assessing the relevance and weight of factual evidence; but their expertise contributes nothing if their expert opinions depend upon facts or factual inferences unsupported by the evidence, as determined by the trier of fact. As will become apparent below, the tribunal is constrained in this case to apply that approach as regards the expert evidence of the parties’ quantum experts, Mr Kaczmarek (called by Devas) and Mr Brailovsky and Dr Flores (called by Antrix).

³⁵⁹ *Chaplin v Hicks* [1911] 2 KB 786 per Vaughan Williams L.J. See also Pollock & Mulla: *The Indian Contract and Specific Relief Acts* 779 (Nilima Bhadbhade ed., 14th ed. 2013) at p. 1169: “the mere fact that it is somewhat difficult to assess the damages, with certainty or precision, does not disentitle the plaintiff to compensation for the loss suffered”; and *SPP v Arab Republic of Egypt* ICSID award of 20 May 1992, Yearbook XIX (1994) at p. 84: “[i]t is well settled that the fact that damages cannot be settled with certainty is no reason not to award damages when a loss has been incurred”, cited with approval in *Himpurna California Energy Ltd v PT (Persero) Perusahaan Listrik Negera* Final Award, 4 May 1999, XXV Yearbook Commercial Arbitration 11 (A. Jan van den Berg ed., Kluwer Law International 2000 (*Himpurna*), [237].

³⁶⁰ [1951] 2 KB 786 (“[w]here precise evidence is obtainable, the court naturally expects to have it, where it is not, the court must do the best that it can”).

325. Lastly, these expert witnesses on quantum based their opinions on the value of Devas at the relevant time calculated by reference to the price that would be paid by a hypothetical “prospective investor” purchasing Devas under an arm’s length transaction, assuming a willing buyer and a willing seller. As explained below, the tribunal has in part followed their approach. It is often used for claims addressed by investment arbitration tribunals under international law, as to which the relevant legal materials are now very extensive (cited here by both parties). However, the tribunal recognises that this is not a claim made by a foreign investor against a host state under international law; and that, accordingly, this approach, whilst useful, has certain limitations for the present case.
326. Accordingly, under Indian law, the first step is for the tribunal to determine whether Devas suffered any loss or damage due to Antrix’s wrongful repudiation of the Devas Agreement. That determination is made on the balance of probabilities. If the tribunal is satisfied that Devas did suffer loss or damage, the next step is for the tribunal to quantify that loss or damage. If precise evidence of its loss or damage is obtainable, it is required; if not, the tribunal must do the best that it can on the evidence that has been led.

Did Devas suffer any loss or damage?

327. Devas submits that, as a result of Antrix’s repudiation of the Devas Agreement, any value that it had was destroyed. Devas says that “without the promised Satellites and the associated satellite spectrum required to deliver the Devas Services to its customers in India, Devas had no business.”³⁶¹ Antrix does not dispute this.³⁶²
328. Accordingly, whether or not Devas suffered any loss or damage can be determined by asking whether, as at 25 February 2011, its business had any value.
329. In order to determine whether Devas had any value as at 25 February 2011 the tribunal considers that an appropriate starting point is DT’s acquisition of a 20% interest in Devas in March 2008. As noted above, this investment gave Devas an implied valuation of USD 375 million.³⁶³
330. Mr Kaczmarek testifies that, following this investment the value of Devas increased (about four-fold), whereas Mr Brailovsky and Dr Flores testify that it decreased (to the point of having *negative* value). If Mr Brailovsky and Dr Flores are correct, then Devas will not have discharged its burden of proof.

Mr Brailovsky’s and Dr Flores’ reasons why the value of Devas decreased after March 2008

331. Mr Brailovsky and Dr Flores testify that Devas’ value decreased between March 2008 and 25 February 2011 for the following reasons:
- a. PS1 and PS2 had not been launched as at 25 February 2011;

³⁶¹ Devas’ PHM, [274].

³⁶² Further, as Devas notes, both parties’ experts assessed approach the question of the quantum of Devas’ loss or damage by reference to Devas’ value as at 25 February 2011.

³⁶³ See [82] above.

- b. Devas had not received a Frequency Authorization and Operating Licence from the WPC;³⁶⁴
- c. the Ancillary Terrestrial Component (**ATC**) fee that the WPC would charge for that licence was unknown;
- d. there were technological changes in the telecommunications market which meant that Devas lost its “first mover” status; and
- e. there was increased competition in the telecommunications market that had eroded profits of telecommunications companies.³⁶⁵

332. The tribunal will consider each of these reasons in turn.

Delay in the launch of the satellites

333. Mr Brailovsky and Dr Flores testify that DT Asia expected PS1 and PS2 to be launched in March 2008 and December 2009 but that neither satellite was in orbit as at 25 February 2011. They testify that the entire Devas business depended on the satellites being launched, and the fact that they had not been launched “would have cast serious doubt in the mind of any prospective investor evaluating the feasibility of the project on 25 February 2011”.³⁶⁶

334. The tribunal accepts that a “prospective investor” evaluating the feasibility of Devas’ business on 25 February 2011 would have had some doubt about whether the satellites would have been launched. However, such doubt would also have existed in March 2008, when DT acquired its 20% interest in Devas. As Mr Brailovsky and Dr Flores acknowledge, “launching satellites *is* rocket science and liable to a host of uncertainties”.³⁶⁷ Further, the uncertainty did not increase after March 2008; it decreased: by late 2009 there were only “a few defined areas that needed focused attention” in order to be prepared for the launch of PS1,³⁶⁸ and by June / July 2010 the satellites were substantially completed.³⁶⁹ Accordingly, the risk of the satellites not being launched was lower as at 25 February 2011 than in March 2008. This would have had a positive impact on a prospective investor’s perception of Devas’ value, not a negative impact.

Frequency Authorization and Operating Licence from the WPC

335. Mr Brailovsky and Dr Flores also testify that Devas needed (but had not obtained) a Frequency Authorization and Operating Licence from the WPC³⁷⁰ and that such a licence had not previously been granted for the terrestrial use of Devas’ spectrum. Accordingly, it would have required a

³⁶⁴ Devas had a right under the Devas Agreement to use 70MHz of transponder capacity on PS1 and PS2, but not to re-use that capacity for the terrestrial component of its service, and needed a licence from the WPC to do so.

³⁶⁵ Brailovsky/Flores 1, [29] – [42]; Brailovsky/Flores 2, [38] – [61].

³⁶⁶ Brailovsky/Flores 1, [30].

³⁶⁷ Brailovsky/Flores 1, [30] (emphasis in original).

³⁶⁸ Parsons 1, [25].

³⁶⁹ UNCITRAL Transcript. At 726:19-23.

³⁷⁰ Brailovsky/Flores 1, [31].

change in policy from the WPC. They testify further that such a change in policy would likely have been challenged by terrestrial service providers who would have been competing with Devas' services.³⁷¹ Accordingly, they say that the need to obtain a licence from the WPC would have heightened concerns about the feasibility of the entire project for a potential purchaser.

336. Whether granting such a licence would have in fact required the WPC to change its policy and given rise to challenges from terrestrial service providers is disputed by Devas,³⁷² but unnecessary to decide. This is because the risk of not receiving a WPC licence existed when DT made its investment in Devas in March 2008, and is likely to have been factored into DT's implied valuation of Devas. Accordingly, the fact that the licence had not yet been obtained does not increase the risk of obtaining the licence (causing Devas' value to decrease); it simply means that the risk of obtaining the licence had not diminished. Therefore, in the tribunal's view, the fact that the risk remained as at 25 February 2011 had no adverse effect on Devas' value.

ATC Fee

337. Mr Brailovsky and Dr Flores further testify that Devas would have been required to pay a fee to the WPC of up to USD 10 billion for the ATC licence, which would have rendered Devas' business unviable.³⁷³ This view is based on a recommendation issued by the Telecom Regulatory Authority of India (*TRAI*) in July 2008 that allocation of spectrum in the S-band should be allocated through an auction process.³⁷⁴ Mr Brailovsky and Dr Flores testify that, in light of this policy:

"one can look at India's BWA [Broadband Wireless Access] auctions to attain a proxy for the cost of Devas' 70MHz of nationwide spectrum. We can derive a cost per MHz from Infotel's US\$2.855 billion outlay for 20 MHz in all 22 circles in India's May 2010 BWA auction ... Infotel's payment amount implies a cost of US\$142.8 million per MHz. Applying that ratio, Devas would have had to pay US \$10 billion for its 70 MH."³⁷⁵

338. Mr Brailovsky and Dr Flores testify that even if the amount that Devas had to pay was only USD 1.6 billion, Devas' business would have been unviable.³⁷⁶ Devas does not (expressly) dispute this.
339. The tribunal accepts that Devas was required to pay an ATC fee.³⁷⁷ However, the tribunal does not accept that the BWA auctions provide a reliable proxy for the amount of the fee that Devas would have been required to pay, for the following reasons:

³⁷¹ Brailovsky/Flores 1, [31].

³⁷² Devas' PHM, [326]. See also Kaczmarek 1, [20].

³⁷³ Brailovsky/Flores 1, [103] – [106].

³⁷⁴ Telecom Regulatory Authority of India, Recommendations on Allocation and Pricing for 1.3-2.4 GHz, 2.5-2.69 GHz & 3.3-3.6 GHz Bands, 11 July 2008, [2.16], [2.34].

³⁷⁵ Brailovsky/Flores 1, [105].

³⁷⁶ Brailovsky/Flores 1, [106].

³⁷⁷ Mr Kaczmarek does not dispute this: see Kaczmarek 1, [24].

- a. the TRAI recommendations only apply to the S-band allocated to the DOT for terrestrial use. They do not apply to the *re-use* of existing satellite spectrum or the ATC component of the Devas system. Mr Brailovsky's and Dr Flores' calculations of the potential licence fees are therefore based on a false premise;³⁷⁸
- b. satellite and terrestrial services cannot be provided by different entities in the same spectrum.³⁷⁹ Since Devas already had a right to use the relevant spectrum for satellite services³⁸⁰ it was the only entity capable of using that spectrum terrestrially. Accordingly, an auction process in which Devas bid against other telecommunications companies was not feasible;
- c. the WPC had an interest in the spectrum being used to deliver services to Indian consumers at competitive prices.³⁸¹ Given that Devas was the only entity capable of using the 70MHz of spectrum it leased from Antrix, the WPC had an interest in setting the fee at a level that Devas could afford to pay. Devas would plainly have been unable to pay a fee in the amount suggested by Mr Brailovsky and Dr Flores; and
- d. after the TRAI recommendations were issued, each of DT Asia, CC/Devas and Telecom Devas acquired further shares in Devas (totaling around USD 25 million) in response to a capital call.³⁸² The fact that sophisticated investors made a substantial further investment in the company after the TRAI recommendation was issued is entirely inconsistent with – and renders unpersuasive – Mr Brailovsky's and Dr Flores' view that the recommendation destroyed all of Devas' value.³⁸³

³⁷⁸ Chandrasekhar, [35]. This is effectively acknowledged by Mr Brailovsky and Dr Flores: see Brailovsky/Flores 1, footnote 43: "[t]his recommendation did not relate to spectrum in the frequency ranges at issue in this case, which had been allocated for satellite (not terrestrial) use".

³⁷⁹ See Antrix's PHM at [67]: "[i]n August 2007, the Chief of Staff committee directed the appointment of an expert committee by the IDS to review spectrum uses by the various military services ... The next month, the expert committee reported on the heavy lobbying by commercial operators to obtain permission to use S-band in India. It stated that "[s]atellite services (MSS and BSS) in [S-band] cannot coexist with the terrestrial services and hence the spectrum cannot be shared". See also UNCITRAL Transcript at 422:14-18 (Parsons): "[e]very administration has ... looked at it and said ... you can't co-exist within this band". See also CB289: "India would apply the band segmentation approach for use of the band 2500 – 2900 MHz for terrestrial and space services considering that the co-frequency, co-coverage sharing between space services and terrestrial services is not feasible")."

³⁸⁰ Devas Agreement, Article 2.

³⁸¹ The *Telecom Regulatory Authority of India Act, 1997* states that the statutory goal of telecom regulation in India is "achieving the universal service, bringing the quality of telecom services to world standards, provisions of wide range of services to meet the customers demand at reasonable price, and participation of the companies registered in India in the area of basic as well as value added telecom services as also making arrangements for protection and promotion of consumer interest and ensuring fair competition": CB5.

³⁸² See [89] above.

³⁸³ Antrix also relies on a note from the Secretary of the DOT dated 6 July 2010 that refers to Devas being charged a licence fee that was "commensurate" with auction prices: see Exhibit R-122. That reliance is misplaced for two reasons. First, the note was in response to Dr Radhakrishnan's note of 16 June 2010 seeking advice concerning the annulment the Devas Agreement: see [102] above. But for Antrix's breach of the Devas Agreement, Dr Radhakrishnan would not have sent that note. Second, in the tribunal's view, the WPC not have ultimately sought to charge a licence fee that was commensurate with the auction prices, because it would have rendered Devas' business unviable and therefore prevented any services being provided to Indian consumers by way of the 70mHz of S-band that had been allocated to Devas.

340. Mr Kaczmarek, on the other hand, estimates that the ATC fee would have been USD 31 million per annum. He acknowledges that “there is some uncertainty regarding the ultimate level of the ATC fee that would have been applied”,³⁸⁴ but has estimated this figure on the basis that “most countries charge a nominal fee for the use of ATC spectrum”.³⁸⁵ In the tribunal’s view, this is a reasonable assessment based on a reasonable assumption. Given the lack of any cogent alternative estimate, the tribunal accepts Mr Kaczmarek’s evidence on this issue.

Technological changes

341. Mr Brailovsky and Dr Flores also testify that the delay in the start of Devas’ operations had implications for the “first-mover” status Devas was hoping to achieve given the technological changes that occurred between March 2008 and February 2011. The example that they give is that Android technology allowed other providers to supply services and devices that Devas intended to offer on an exclusive basis.³⁸⁶
342. Mr Kaczmarek, on the other hand, testifies that Devas’ systems were compatible with Android devices, and that the development of the Android platform opened up a new segment of mobile users who could use Devas’ AV and BWA services. He testifies that, as a result, the development of Android technology was positive for Devas.³⁸⁷
343. In the tribunal’s view, the delay in the launch of Devas’ business would have been relevant to a potential investor’s assessment of the prospects of Devas’ business. Competition for 3G services increased significantly in the period from March 2008 to February 2011, as did competition for the provision of Devas’ proposed 4G services. For example, Reliance Industries Limited (*RIL*), Devas’ main competitor,³⁸⁸ was expecting to rollout 4G services nationwide by the middle of 2012.³⁸⁹ The tribunal accepts that a potential investor would have taken this into account when assessing Devas’ value.
344. However, that does not necessarily mean that Devas’ value decreased after March 2008 (let alone diminished entirely). First, as Devas submits,³⁹⁰ its services were compatible with Android technology, so the popularity of Android technology and iPhones may have given investors comfort about the level of demand for Devas’ services. Second, potential investors may have been confident in Devas’ ability to compete with RIL, given that RIL was not only a newcomer to telecommunications but would have been required to build a ground network in urban *and* rural areas, and it would have been burdened with greater debt than Devas.³⁹¹ Further, as discussed

³⁸⁴ Kaczmarek 1, [169].

³⁸⁵ Kaczmarek 1, [166].

³⁸⁶ Brailovsky/Flores 1, [36].

³⁸⁷ Kaczmarek 1, [29].

³⁸⁸ Kaczmarek 2, [130].

³⁸⁹ Brailovsky/Flores 2, [54].

³⁹⁰ See, e.g., Devas’ PHM, [322].

³⁹¹ Kaczmarek 2, [135]; see also Devas’ PHM, [412].

below,³⁹² a number of other significant risks that Devas had faced in March 2008 had reduced by February 2011.

Low profitability of existing telecommunication service providers

345. Mr Brailovsky and Dr Flores also testify that the profitability of telecommunication service providers decreased in the period from March 2008 to February 2011.³⁹³ While they do not say so explicitly, their view appears to be that, since the profitability of Devas' competitors decreased in that period, Devas' value also decreased.
346. Mr Kaczmarek does not dispute that competition eroded other providers' profitability between March 2008 and February 2011.³⁹⁴ However, he testifies (inter alia) that the increased competition was primarily for 2G and 3G services, not the 4G/BWA sector in which Devas would compete. He notes that, unlike 2G and 3G segments, there were only two 4G/BWA licenses auctioned for each of the 22 telecommunications "circles"³⁹⁵ in India, and RIL was the only company that had a nationwide 4G/BWA licence.³⁹⁶
347. The tribunal accepts Mr Kaczmarek's evidence in relation to this issue. Potential investors' assessment of Devas' value is unlikely to have been affected by the profitability of companies that faced different competitive constraints to Devas. Accordingly, while potential investors are likely to have taken into account RIL's expecting rollout 4G/BWA services, the profitability of 2G and 3G providers is unlikely to have materially affected their assessment of Devas' value.

Mr Kaczmarek's reasons why the value of Devas increased after March 2008

348. In contrast to Mr Brailovsky and Dr Flores, Mr Kaczmarek testifies that the value of Devas increased between March 2008 and 25 February 2011. Among other things, Mr Kaczmarek testifies that, in this period:
- a. Devas obtained various important licences;
 - b. Devas successfully conducted experimental trials;
 - c. Devas established a network of suppliers and vendors;
 - d. Devas procured further investment;
 - e. work progressed successfully on the construction of PS1 and PS2.³⁹⁷

349. The tribunal will consider each of these reasons in turn.

³⁹² See [348] – [360].

³⁹³ Brailovsky/Flores 1, [37].

³⁹⁴ Kaczmarek 2, [134].

³⁹⁵ The Indian wireless telecom market is divided into 22 circles (roughly similar to the political demarcation of states). Licensing fees for various services and revenue sharing fees paid by providers to the government are based on this circle structure. See Kaczmarek 1, [65].

³⁹⁶ Kaczmarek 2, [130].

³⁹⁷ Kaczmarek Presentation, slide 31.

Devas obtained various important licences

350. Mr Kaczmarek testifies that, between March 2008 and 25 February 2011, Devas obtained:

- a. ISP and IPTV licences, which permitted Devas to supply services that included digital television, video on demand and other types of entertainment to users in urban and rural areas;³⁹⁸ and
- b. a licence to conduct experimental trials, which permitted Devas to conduct experimental trials of the wireless apparatus that underscored the Devas system.³⁹⁹

351. Mr Brailovsky and Dr Flores, on the other hand, testify that these licences did not reduce the risks that Devas faced because they were not “the main sources of uncertainty” for Devas.⁴⁰⁰ According to Mr Brailovsky and Dr Flores, the main unknowns for Devas:

“relate to economic and policy issues: consumer receptiveness to Devas’ services, the behaviour of competition, the degree to which costs could have been kept under control, the attitude and criteria of regulators, and the competing demands for S-band capacity for non-commercial, security purposes.”⁴⁰¹

352. The tribunal accepts that obtaining these licences was not the “main” uncertainty that Devas faced. However, there is nothing to suggest that Devas had any legal right to the licences. It follows that there was at least some risk that they would not be issued and that, when they were issued, one of the risks that Devas faced diminished. That said, Devas has not led any evidence of what was involved in obtaining the licences or how difficult they were to obtain. Accordingly, while the tribunal accepts that obtaining the licences had a positive impact on Devas’ value, the tribunal does not accept that the impact was substantial.

Experimental trials

353. Mr Kaczmarek also relies on the successful completion of the Phase I and Phase II experimental trials.⁴⁰² Mr Brailovsky and Dr Flores, on the other hand, say that the trials did not decrease Devas’ risk because Devas’ hybrid technology was “not experimental; it has been proven elsewhere over the last decade”.⁴⁰³

³⁹⁸ See [84] above.

³⁹⁹ See [85] above.

⁴⁰⁰ Brailovsky/Flores 1, [42].

⁴⁰¹ Brailovsky/Flores 1, [40].

⁴⁰² See [87] and [108] above.

⁴⁰³ Brailovsky/Flores 1, [39].

354. However, Mr Brailovsky's and Dr Flores' evidence on this issue is contradictory. They also testify that:

"DVB-SH was not a mature technology, has never been successfully implemented for commercial use, and never attracted a market that would have led device makers to invest in the development of products to support the DVB-SH ecosystem".⁴⁰⁴

355. In any event, Mr Brailovsky's and Dr Flores' views are not persuasive. The underlying reason for performing such experimental trials is to ensure that the relevant system functions properly and to reduce the risk of operational failure. Put another way, if Devas' proposed system was risk free the trials would have been unnecessary.

356. Accordingly, the tribunal accepts that there were risks that the trials sought to reduce, and since the trials were performed successfully those risks did reduce, which in turn increased Devas' value.

Procuring suppliers and vendors

357. Mr Kaczmarek testifies that Devas' value also increased between March 2008 and 25 February 2011 because it established a network of suppliers and vendors for the ground component of its network.⁴⁰⁵ This included entering into contracts to purchase "chipsets", "AccessPorts" and other components for handsets, as well as encryption and other services.⁴⁰⁶ According to Mr Larsen:

"[b]y the end of 2009, with the assistance of the DT team that developed the network rollout plan, Devas was in a position to deploy its terrestrial network. That is, we had developed and tested the network technology, and had put into place the purchase and procurement agreements to acquire the necessary components."⁴⁰⁷

358. Devas' evidence of the network of suppliers and vendors that it had developed is not materially disputed. The tribunal accepts that developing the network involved considerable time and cost for Devas, and that with it, Devas was a step closer to being able to providing its proposed services. However, like with the licences that Devas obtained, there is no evidence to suggest that developing this network presented any significant difficulty or risk for Devas. The tribunal therefore accepts that it partially increased Devas' value, but not that its effect on Devas' value was substantial.

Further investment in Devas

359. The tribunal does, however, accept that the further investment that Devas procured on 29 September 2009 had a substantial positive impact on its value. Together, DT Asia, CC/Devas and Telcom Devas made a further investment of around USD 25 million, which demonstrated

⁴⁰⁴ Brailovsky/Flores 2, [247].

⁴⁰⁵ Kaczmarek Presentation, slide 31.

⁴⁰⁶ See Viswanathan I, [130].

⁴⁰⁷ Larsen, [47].

their continuing commitment to the business and confidence in its prospects of success. Mr Brailovsky rightly accepted during cross-examination that this was "value enhancing".⁴⁰⁸

Progress on satellites

360. Similarly, the tribunal accepts that progress on the satellites reduced the risks that Devas faced and positively affected its value. The satellites were substantially closer to being ready to launch in February 2011 than they were in March 2008: by late 2009 there were only "a few defined areas that needed focused attention" in order for PS1 to be completed;⁴⁰⁹ by 29 October 2009 the construction of PS2 had been approved; by June / July 2010 the satellites were substantially completed;⁴¹⁰ and by February 2011 geosynchronous launch vehicles necessary to launch both satellites had been approved.⁴¹¹ The tribunal accepts that these matters decreased the risks that Devas faced, and positively affected its value.

Conclusion regarding whether Devas had value as at 25 February 2011

361. For these reasons, the tribunal does not accept that Devas had no value as at 25 February 2011. None of the factors relied on by Mr Brailovsky and Dr Flores suggest (either individually or cumulatively) that Devas' value had eroded between March 2008 and February 2011. The tribunal finds their suggestion that Devas had a value of *negative* USD 887 million as at 25 February 2011 plainly unfounded and unpersuasive. To the contrary, when the factors relied on by Mr Kaczmarek are taken into account, it is manifestly clear that Devas' value in fact increased.
362. Accordingly, the tribunal accepts that Antrix's wrongful repudiation of the Devas Agreement caused Devas to suffer substantial loss or damage.

Quantum of Devas' loss or damage

363. The next step is for the tribunal to determine the quantum of that loss or damage. As noted above, Mr Kaczmarek's valuation of Devas relies on methodologies based on DCF, comparable companies and comparable transactions. It is necessary to consider what weight, if any, the tribunal is able to place on these methodologies in the particular factual circumstances of this case.

DCF methodology

364. According to Mr Kaczmarek, the DCF methodology:
- "requires the valuation practitioner to develop pro-forma financial statements for the subject business, compute the relevant cash flow measure using those statements,

⁴⁰⁸ UNCITRAL transcript, 669:23-24.

⁴⁰⁹ Parsons 1, [25].

⁴¹⁰ UNCITRAL transcript, at 726:19-23.

⁴¹¹ CB-226, [15].

determine an appropriate discount rate, and discount the estimated cash flows to present value as of the relevant date.”⁴¹²

365. Devas obviously did not have any cash flow. Antrix’s wrongful repudiation of the Devas Agreement meant that it never generated any revenue. Mr Kaczmarek sought to address this difficulty by relying on a financial model containing revenue and cost projections for Devas that was jointly developed by Devas and DT (when DT acquired its 20% interest in Devas in March 2008, which was later developed into a model to assist with the rollout of Devas’ services called the “Darwin Model”).⁴¹³ Mr Kaczmarek (inter alia) adjusted the Darwin Model to reflect new information and updated inputs as of 25 February 2011, which provided an estimate of future cash flows for Devas as at 25 February 2011. He then discounted those cash flows at a rate of 21.1%, to reflect the cost of an equity investment in Devas as at that date (without factoring in inflation).⁴¹⁴ This valued Devas at USD 1,482,432,000.00.⁴¹⁵
366. Antrix says that it is not appropriate to rely on the DCF methodology at all in this case. It says that according to the guidelines issued by the World Bank,⁴¹⁶ it is only reasonable to use the DCF methodology to determine the fair market value of a business if the business is “a going concern with a proven record of profitability”.⁴¹⁷ Antrix says that Devas was not a going concern, and did not have a proven track record of profitability. It says that Devas had “no customers, no brand recognition, no revenue ... [and] virtually no investments”.⁴¹⁸ Antrix has referred the tribunal to many legal materials in which tribunals have declined to rely on the DCF methodology because the relevant business had earned little or no revenue as at the valuation date.⁴¹⁹
367. Devas, on the other hand, says that if a foreign buyer were purchasing Devas at the time, it would have been required by the Reserve Bank of India to price those shares by using the DCF methodology, which (so it says) is an “endorsement” of the use of the DCF methodology in these

⁴¹² Kaczmarek 1, [36].

⁴¹³ Kaczmarek 1, [10].

⁴¹⁴ Kaczmarek 1, [10] – [12].

⁴¹⁵ Kaczmarek 2, [272]. Initially, Mr Kaczmarek said that it valued Devas at USD 1,641,679,000.00 (see Kaczmarek 1, [10]), but he later adjusted this figure to correct errors and reflect updated information.

⁴¹⁶ Legal Framework for the Treatment of Foreign Investment: Volume II, Report to the Development Committee and Guidelines on the Treatment of Foreign Direct Investment, (World Bank Group 21 September 1992) (*World Bank Guidelines*).

⁴¹⁷ At p. 42.

⁴¹⁸ Antrix’s PHM, [117].

⁴¹⁹ For example, *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF)/97/1, in which the tribunal stated “where the enterprise has not operated for a sufficiently long time to establish a performance record or where it has failed to make a profit, future profits cannot be used to determine going concern or fair market value. . . . The Tribunal agrees with Mexico that a discounted cash flow analysis is inappropriate in the present case because the landfill was never operative and any award based on future profits would be wholly speculative”: at [120] – [121]; *Siemens A.G. v. The Argentine Republic*, ICSID Case No. ARB/02/8, in which the tribunal said, “the DCF method is applied to ongoing concerns based on the historical data of their revenues and profits; otherwise, it is considered that the data is too speculative to calculate future profits”: at [355]; *National Grid p.l.c. v. Argentine Republic*, Ad Hoc/UNCITRAL, Award, 3 November 2008, in which the tribunal said “[i]n order to function properly, the DCF approach requires that the concern in question must have a history of profitable operation”: at [276]. See also *Southern Pacific Properties (Middle East) Limited v. Arab Republic of Egypt*, ICSID Case No. ARB/84/3, [188]; *Waguih Elie George Siag and Clorinda Vecchi v. The Arab Republic of Egypt*, ICSID Case No. ARB/05/15, [570].

circumstances.⁴²⁰ It also says that even though some tribunals have expressed reluctance about using a DCF methodology to value businesses that do not have a trading history, there is no “per se rule” against doing so,⁴²¹ and tribunals have in fact done so in certain circumstances.⁴²² Devas has also referred the tribunal to economic texts which support use of the DCF methodology to value businesses with no earnings history in certain circumstances.⁴²³

368. The tribunal has carefully considered whether it is appropriate to use any DCF methodology in this case, and has come to the view that it is not appropriate. According to the World Bank Guidelines and the overwhelming majority of legal materials, it is not appropriate to rely on a DCF methodology to value companies that do not have any earnings history, such as Devas. The tribunal accepts that an exception can be made in some cases, but only if there is a reliable, alternative guide to what the future earnings of the business are likely to be. For example: the relevant contract may guarantee minimum payments; competitive constraints in the relevant market may be particularly low (e.g. due to regulations that apply to the industry or a market's natural monopoly characteristics); or there may be statutes or regulations that specify the prices that may be charged for the relevant goods or services.
369. This is not one of those exceptional cases. Among other things, the demand for Devas' services is unclear; the prices that it would be able to profitably charge is unclear; market(s) for multimedia broadcasting services can be highly innovative and cause (even very profitable) products and services to quickly become obsolete; and there is persuasive evidence, that the tribunal accepts, that Devas faced significant competition for the services that it proposed to provide.⁴²⁴ In other words, there is nothing that can give the tribunal sufficient confidence about the cash flows that Devas would have earned but for Antrix's wrongful repudiation of the Devas Agreement.
370. It is true that DT's valuation of Devas in March 2008 was partly based on a DCF methodology. But DT is in a different position to this tribunal. It is one of the world's major telecommunications service providers and its business includes investing in start-up telecommunications companies. The fact that it was comfortable speculating on Devas' future cash flows does not mean that this tribunal should be comfortable doing so.

⁴²⁰ Devas' PHM, [331]. The term “going concern” is defined in the World Bank guidelines:

“an enterprise consisting of income-producing assets which has been in operation for a sufficient period of time to generate the data required for the calculation of future income and which could have been expected with reasonable certainty, if the taking had not occurred, to continue producing legitimate income over the course of its economic life in the general circumstances following the taking by the State”

⁴²¹ Devas' PHM, [332].

⁴²² E.g., *Gul Bottlers (PVT) Limited v Nichols Plc* [2014] EWHC2173 (Comm), *Himpurna and ADC Affiliate Ltd. v. Hungary*, ARB/03/16 (ICSID 2006).

⁴²³ See Devas' PHM, [343] – [345].

⁴²⁴ See [343] above.

371. Further, an aspect of the DCF methodology that the tribunal finds particularly troubling in this case is that small variations in the assumptions used in the DCF methodology can dramatically and unrealistically change Devas' value. For example:
- a. delaying the launch date by a year decreases Devas' value by USD 352 million (or 22%);
 - b. having 10% higher costs decreases its value by USD 473 million (or 30%);
 - c. charging 10% lower prices decreases its value by USD 488 million (or 31%); and
 - d. increasing the discount rate from 26.3% to 21.1% decreases its value by about USD 1 billion (or 63%).⁴²⁵
372. That is significant because it means that, if the tribunal is to be satisfied that the valuation produced by Devas' DCF methodology is reasonable, it would need to be satisfied that all of the assumptions are accurate. For example, if the tribunal is not satisfied that the appropriate discount rate is accurate, Devas' value could be over or under stated by hundreds of millions of dollars.
373. Such precision is impossible in this case. Determination of an appropriate discount rate is not an exact science. It involves taking into account a range of risks that the business would have faced and then making a value judgment about an appropriate discount rate based on the apparent severity of those risks. Similarly, assumptions concerning Devas' prices and costs are not based on clearly established facts, but on what Devas might have been able to charge, and what its costs might have been, in a hypothetical, counterfactual world where it had started providing services.
374. In other cases this difficulty may not arise. The tribunal understands that the reason for the extreme sensitivity of the DCF methodology in this case is the length of the period that it would take for Devas to become cash flow positive (nine years).⁴²⁶ In this case, in the tribunal's view, it makes Devas' DCF methodology an unrealistic and unreliable vehicle for determining its damages.
375. Accordingly, the tribunal considers that it is not appropriate to rely on the DCF methodology in this case.
- Are the comparable companies and comparable transactions methodologies appropriate?
376. Nor does the tribunal consider that is appropriate to rely on Mr Kaczmarek's other methodologies, namely the comparable companies and comparable transactions methodologies.
377. The "comparable" companies that Mr Kaczmarek relies on are Bharti Airtel and Sirius XM. The tribunal does not consider either company to be comparable. Bharti Airtel is India's largest

⁴²⁵ Brailovsky/Flores 1, Table 3, p. 24. The tribunal notes that this table was based on the cash flows assumed by Mr Kaczmarek in his first report, as "corrected" by Mr Brailovsky and Dr Flores in their first report, and that Mr Kaczmarek later updated his calculation of damages. The tribunal also notes that it has used these figures for illustrative purposes only, and does not accept that the cash flow they assume is correct.

⁴²⁶ See Brailovsky/Flores 1, [44].

cellular phone company (in terms of subscribers and market share) and in 2011 it had annual revenue of USD 13.3 billion and a presence in 19 countries.⁴²⁷ By contrast, Devas was a start up company that had no subscribers and no revenue.

378. Sirius XM operates in North America, not India, and in circumstances that are materially different to those that Devas would face.⁴²⁸ It operates in the audio services industry only; and so it does not face some of the technological complexities that Devas would face in operating its broadband wireless services.⁴²⁹ Further, unlike Devas, it also has an established sales channel that guarantees a given level of subscribers through the sale of new cars, approximately 70% of which have Sirius XM installed.⁴³⁰
379. The “comparable” transactions that Mr Kazcmarek relies on are two acquisitions of 20 MHz of S-band spectrum by DISH Network in the United States of America in early 2011. The tribunal does not consider that it is appropriate to compare the value of bandwidth in the United States to the value of Devas’ business. The value of bandwidth can differ across borders and industries as it depends on factors such as average revenue per user, subscriber base and income levels of the subscriber base.
380. The tribunal’s view of the comparable companies and transactions methodologies has been fortified by the fact that Mr Kaczmarek himself has little confidence in them. He testifies that they were “non-traditional in this case”⁴³¹ and gave them each a 10% weighting (compared to the DCF methodology’s 80% weighting). The fact that he considers them less reliable than the DCF methodology, and the tribunal has no confidence in the DCF methodology, is telling.

The tribunal’s assessment of the quantum of Devas’ loss or damage

381. That does not, however, mean that Devas is not entitled to an award of damages. As noted above, once the tribunal has accepted that Devas has suffered substantial loss or damage, the fact that the quantum of that loss or damage may be difficult to assess is not a valid reason for refusing to award any damages under Indian law (as the applicable law). Accordingly, as part of its arbitral mandate, the tribunal is required to do the best that it can to assess the quantum of Devas’ loss or damage based on the available factual evidence adduced in this arbitration.
382. The tribunal has the great benefit of being able to use DT’s valuation of Devas in March 2008 as a starting point. As noted above, this implied a value of USD 375 million as at March 2008. The tribunal is also satisfied that Devas’ value increased between March 2008 and 25 February 2011. As set out above, there were a number of events that significantly increased Devas’ value in that period, including: the successful completion of the Phase I and Phase II trials; substantial

⁴²⁷ Bailovsky/Flores 1, [181].

⁴²⁸ Bailovsky/Flores 1, [187].

⁴²⁹ Brailovsky/Flores 1, [185].

⁴³⁰ Brailovsky/Flores 1, [186].

⁴³¹ Kazcmarek 1, [20].

completion of the satellites; approval of the geosynchronous launch vehicles; and the additional USD 25 million investment by DT Asia, CC/Devas and Telcom Devas in September 2009. There were also a number of less tangible factors that decreased the risks that Devas faced (and therefore increased its value), including Devas' procurement of ISP and IPTV licences and securing of a network of suppliers and vendors.

383. The tribunal does not accept that Devas' value increased to the extent alleged by Devas, for two primary reasons. First, a number of the delays to the launch of the satellite would still have occurred but for Antrix's wrongful repudiation of the Devas Agreement – namely, the delays that were notified to Devas in April 2009,⁴³² November 2009,⁴³³ December 2009⁴³⁴ and February 2010.⁴³⁵ They all occurred before Dr Radhakrishnan took any of the key steps that would not have been taken but for the wrongful repudiation of the agreement. This suggests that PS1 would not have been launched until at least September 2010 (and potentially significantly later),⁴³⁶ which would in turn have delayed the commencement of Devas' services, and reduced the period of the lease in which Devas was able to generate revenue.
384. Second, competition for 4G services also increased between March 2008 and February 2011, with Devas' main competitor developing plans to rollout nationwide 4G services.⁴³⁷ As noted above, the tribunal considers that this would have negatively affected an investor's assessment of Devas' business prospects as at 25 February 2011.⁴³⁸
385. The tribunal is not in a position to calculate the amount by which Devas' business increased in value with exact precision. With no income stream, comparable companies or comparable transactions to use as a guide to Devas' value, there are very limited materials on which to form a view about its precise value. However, as noted above the tribunal is nevertheless required to decide upon a figure, without engaging in mere speculation.
386. In determining the value of Devas as at 25 February 2011, the tribunal has started from the basis that it was valued at USD 375 million in March 2008 when DT placed its investment in the company. The value is based on an arm's length transaction when a substantial international investor acquired equity in the company. That price is used to determine the value of the total equity of Devas. The tribunal then finds that Devas increased in value up to 25 February 2011, primarily on account of the following developments: the successful completion of the Phase I and Phase II trials; substantial completion of the satellites; approval of the geosynchronous launch vehicles; additional USD 25 million investment by DT Asia, CC/Devas and Telcom Devas in

⁴³² See [83] above.

⁴³³ See [92] above.

⁴³⁴ See [95] above.

⁴³⁵ See [95] above.

⁴³⁶ September 2010 was the revised deadline that was specified for the launch of the satellites in February 2010: see [95] above.

⁴³⁷ See [343] above.

⁴³⁸ See [343] above.

September 2009; and Devas' procurement ISP and IPTV licences and securing of a network of suppliers and vendors. Next, the tribunal takes into account certain risk factors which Devas faced at the time, such as possible delays in launching the satellites and increased competition. These positive and negative factors have been evaluated by the tribunal, as best it can, in the light of all the evidence and submissions of the parties. The tribunal is in no doubt that the net result is a substantial increase in the value of Devas between March 2008 and 25 February 2011. However the tribunal does not agree with Devas that the value was as great as USD 1.4 billion. In the tribunal's judgment, having considered all the factors in light of the parties' evidence and submissions, between March 2008 and 25 February 2011 Devas' value increased by 50%, to USD 562.5 million; and the tribunal finds, as a fact, that Antrix's wrongful repudiation entitles Devas to damages in that same amount.

H. What is the rate of pre-award and post-award interest that should be applied to an award of compensation/damages?

Pre-award interest

387. Section 31(7)(a) of the 1996 Act states as follows:

"[u]nless otherwise agreed by the parties, where and in so far as an arbitral award is for the payment of money, the arbitral tribunal may include in the sum for which the award is made interest, at such rate as it deems reasonable, on the whole or any part of the money, for the whole or any part of the period between the date on which the cause of action arose and the date on which the award is made."

388. Devas submits that pre-award interest should be at the rate of US Prime + 2%, compounded, or LIBOR + 4%, compounded.⁴³⁹ It says that a surcharge is needed on top of the US Prime or LIBOR rate because "customers usually do not receive loans at the interbank interest rate without a surcharge" and "interest on investment based on the interbank rate . . . usually contains a deduction of the interest rate."⁴⁴⁰

389. Antrix submits that the tribunal should award simple interest calculated based on the yield of the three-month U.S. Treasury bill plus 1 percentage point (that is, 1.06% in total).⁴⁴¹ According to Mr Brailovsky and Dr Flores, this is "based on the cost of borrowing of a company like those with which Devas intended to compete", such as Bharti Airtel.⁴⁴²

390. The tribunal has considered the parties' submissions and formed the view that the appropriate rate of pre-award interest in this case is three month USD LIBOR + 4%, calculated on a simple

⁴³⁹ Devas' PHM, [441].

⁴⁴⁰ Devas' PHM, [441], citing *Imgard Marboe, Calculation of Compensation & Damages in International Investment Law*, Oxford University Press, 2009, [6.148].

⁴⁴¹ See Antrix's PHM, [250]; Antrix's PHRM, [92]; Brailovsky/Flores 2, [338].

⁴⁴² Brailovsky/Flores 2, [341] (see generally [334] – [341]).

basis. That rate of interest is to be paid on the amount of USD 562.5 million from the date of Antrix's repudiation of the Devas Agreement (25 February 2011) to the date of this award.

Post-award interest

391. Section 31(7)(b) of the 1996 Act states that:

"[a] sum directed to be paid by an arbitral award shall, unless the award otherwise directs, carry interest at the rate of eighteen per centum per annum from the date of the award to the date of payment."⁴⁴³

392. Antrix has not (expressly) disputed that this provision ought to be applied. Accordingly, the tribunal will order that post-hearing simple interest at the rate of 18% per annum from the date of this award until the date of full payment.

I. Which party should bear the legal and arbitration costs of this matter, and in what amount?

393. Article 20(g) of the Devas Agreement states as follows:

"[e]ach Party to any Arbitration shall bear its own costs or expenses in relation thereto, including but not limited to such Party's attorneys' fees, if any, and the expenses and fees of the member of the Arbitral [sic] Tribunal appointed by such party, provided, however, that the expenses and fees of the third member of the Arbitral [sic] Tribunal and any other expenses of the Arbitral [sic] Tribunal not capable of being attributed to anyone member shall be borne in equal parts by the Parties."

394. Both parties agree that the tribunal is not bound to award costs in accordance with this provision. They each say that costs are to be determined in accordance with the ICC Rules, which provides the tribunal with a discretion as to the award of costs, as regards both allocation and (in so far as the parties' legal costs are concerned) assessment.⁴⁴⁴ Article 31(3) of the ICC Rules states:

"[t]he final Award shall fix the costs of the arbitration and decide which of the parties shall bear them or in what proportion they shall be borne by the parties."

395. Each party also says that the legal and arbitration costs in this matter should be awarded in its favour.⁴⁴⁵

396. In light of the parties' positions, the tribunal considers that it does have a discretion to order costs in accordance with Article 31(3) of the ICC Rules. However, the tribunal considers that the most appropriate manner in which to exercise that discretion should be guided by the manner specified by Article 20(g), which is what the parties originally intended when they negotiated and executed

⁴⁴³ The Indian Supreme Court has said that the purpose of this provision: "is clear, namely, viz. to encourage early payment of the awarded sum and to discourage the usual delay, which accompanies the execution of the Award in the same manner as if it were a decree of the court vide Section 36 of the Act": *Hyder Consulting (UK) Ltd. v. Governor, State of Orissa*, 2014 SCC Online SC 940, [2] and [9].

⁴⁴⁴ Devas' PHM, [449]; Antrix's PHM, [251].

⁴⁴⁵ Devas' PHM, [450]; Antrix's PHM, [252].

the Devas Agreement. In the tribunal's opinion, Article 20(g) reflects the parties' intention that the rule commonly applied in international arbitration that the winning party recovers its costs is not in general intended to apply in this arbitration.

397. There is one exception, however. Article 20(g) provides that the parties are each to bear the costs of the arbitrator that it appointed. Antrix did not nominate an arbitrator. Dr Anand was appointed on its behalf by the ICC Court.⁴⁴⁶ Construed literally, Article 20(g) suggests that the parties would therefore pay Dr Anand's fees in equal shares. In the tribunal's view, it was never the intention of the parties that Antrix would avoid paying the costs of an arbitrator appointed on its behalf in this way. If a party fails to appoint an arbitrator as it is required to do under the arbitration agreement it should not therefore escape an obligation to pay for an arbitrator appointed on its behalf.
398. Accordingly, the tribunal considers that each party should bear their own legal and other costs (including fees of their respective experts), and the parties should pay, in equal shares:
- a. the fees of the arbitral tribunal;
 - b. the expenses of arbitral tribunal (including the fees and expenses of the tribunal secretary); and
 - c. the ICC administrative expenses.
399. The fees and expenses of the arbitral tribunal and the ICC administrative expenses fixed by the ICC Court on 27 August 2015 are USD 1,564,000 in total, so each party is required to pay USD 782,000.
400. The parties have each paid an advance on costs of USD 795,000. Accordingly, USD 26,000 will be reimbursed to the parties in equal shares, i.e. USD 13,000 each.

Operative Part

401. For the foregoing reasons the tribunal unanimously finds and awards as follows:
- a. the tribunal has jurisdiction to hear and decide the claims in this arbitration;
 - b. Antrix is to pay USD 562.5 million to Devas for damages caused by Antrix's wrongful repudiation of the Devas Agreement;
 - c. Antrix is to pay simple interest on USD 562.5 million from 25 February 2011 to the date of this award at the rate of three month USD LIBOR + 4%;
 - d. Antrix is to pay simple interest at the rate of 18% per annum of the amounts in paragraphs 401(b) and (c) from the date of this award to the date of full payment; and

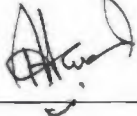
⁴⁴⁶ See [19] above.

- e. each party is to bear its own legal costs of this arbitration, and the parties are to pay, in equal shares, the fees and expenses of the arbitrators and the ICC administrative expenses.

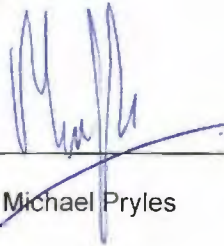
402. All other claims and requests made by the parties in this arbitration have been rejected.

Place of the arbitration: New Delhi, India

Date: 14th September, 2015



Dr Adarsh Sein Anand



Dr Michael Pryles



Mr V.V. Veeder QC

Annexure A – Table of Abbreviations

| | |
|--|---|
| 1996 Act | Indian Arbitration and Conciliation Act 1996 |
| ASG | Additional Solicitor General |
| Anand | Statement of Vijay Anand dated 15 November 2013 |
| Antrix | Antrix Corporation Limited |
| Antrix's PHM | Antrix's post-hearing memorial dated 17 February 2015 |
| Antrix's RPHM | Antrix's reply post-hearing memorial dated 23 March 2015 |
| Antrix's Skeleton | Antrix's Skeleton Argument dated 1 December 2014 |
| Antrix v Devas, Supreme Court Judgment | <i>Antrix Corp. Ltd. v Devas Multimedia P. Ltd, Judgment on Arbitration Petition No. 20 of 2011</i> |
| AV | Audio-visual |
| Babbio 1 | Statement of Lawrence T. Babbio Jr dated 19 February 2012 |
| Babbio 2 | Reply statement of Lawrence T. Babbio Jr dated 23 March 2014 |
| Boothalinga | <i>Boothalinga Agencies v VTC Priaswanmi Nadarm</i> (1969) 1 SCF 65 |
| Brailovsky/Flores 1 | Report of Vladimir Brailovsky & Daniel Flores dated 15 November 2013 |
| Brailovsky/Flores 2 | Second report of Vladimir Brailovsky & Daniel Flores dated 1 August 2014 |
| Brailovsky/Flores 3 | Report by Vladimir Brailovsky and Daniel Flores on the areas of disagreement with Mr |

| | |
|---------------------|--|
| | Kaczmarek dated 30 September 2014 |
| Brailovsky/Flores 4 | Supplemental Report by Vladimir Brailovsky and Daniel Flores dated 11 December 2014 |
| BWA | Broadband Wireless Access |
| CC/Devas | CC/Devas (Mauritius) Ltd |
| CCS | Cabinet Committee on Security |
| Devas | Devas Multimedia Private Limited |
| Devas Agreement | Agreement between Antrix and Devas for the lease of space segment capacity on two satellites, bearing the identification number ANT/203/DEVAS/2005 |
| Devas' PHM | Devas' post-hearing memorial dated 17 February 2015 |
| Devas' RPHM | Devas' reply post-hearing memorial dated 23 March 2015 |
| Devas' Skeleton | Devas' Skeleton Argument dated 1 December 2014 |
| DCF | Discounted cash flow |
| DOS | Department of Space |
| DOT | Department of Telecommunications |
| DT | Deutsche Telekom |
| DT Asia | Deutsche Telekom Asia Pte Ltd |
| Forge Advisors | Forge Advisors LLC |
| Gearbulk | <i>Stocznia Gdynia S.A. v. Gearbulk Holdings Ltd</i> [2009] EWCA (Civ) 75 |
| GOI | Government of India |
| Gupta 1 | Statement of Arun Gupta dated 19 February |

| | |
|-----------------------|--|
| | 2012 |
| Gupta 2 | Reply statement of Arun Gupta dated 24 March 2014 |
| Hegde | Statement of Dr V. S. Hegde dated 30 July 2014 |
| Himpurna | <i>Himpurna California Energy Ltd v PT (Persero) Perusahaan Listrik Negera</i> Final Award, 4 May 1999, XXV Yearbook Commercial Arbitration 11 |
| ICC Court | International Court of Arbitration of the International Chamber of Commerce |
| ICC Rules | 1998 ICC Rules of Arbitration |
| Internet Broadcasting | <i>Internet Broadcasting Corporation (trading as NETTV) and another v MAR LLC (trading as MARHedge)</i> (2009) EWHC 844 (Ch) |
| IPTV | Internet Protocol Television |
| ISRO | Indian Space Research Organisation |
| Kaczmarek 1 | Report of Brent Kaczmarek dated 20 February 2012 |
| Kaczmarek 2 | Reply report of Brent Kaczmarek dated 24 March 2014 |
| Kaczmarek 3 | Report of Brent Kaczmarek on the areas of disagreement with Mr Brailovsky and Dr Flores dated 30 September 2014 |
| Kaczmarek 4 | Supplemental report of Brent Kaczmarek dated 17 October 2014 |
| Kudos Catering | <i>Kudos Catering (UK) limited v Manchester Central Convention Complex Limited</i> [2012] EWHC 1192 (QB) |
| Lewis 1 | Report of John Lewis dated 17 February 2012 |

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| Lewis 2 | Reply report of John Lewis dated 14 March 2014 |
| MOU | Memorandum of Understanding between Forge Advisors and Antrix dated 28 July 2003 |
| Okta | <i>Mamidoil-Jetoil Greek Petroleum Co. v. Okta Crude Oil Refinery AD No (2) [2003] 2 All ER (Comm) 640</i> |
| Parsons 1 | Statement of Gary Parsons dated 18 February 2012 |
| Parsons 2 | Reply statement of Gary Parsons dated 21 March 2014 |
| Pawan Alloys | <i>Pawan Alloys & Casting Pvt. Ltd., Meerut v. U.P. State Electricity Board and others (1997) 7 SCC 251</i> |
| PS1 | Primary satellite system |
| PS2 | Secondary satellite system |
| Rejoinder | Antrix's Rejoinder dated 1 August 2014 |
| Reply | Devas' Reply dated 24 March 2014 |
| Rolimpex | <i>C. Czarnikow Ltd. v. Centrala Handlu Zagranicznego Rolimpex</i> |
| SATCOM | India's Satellite Communication policy |
| Sethuraman 1 | Statement of K. Sethuraman dated 15 November 2013 |
| Sethuraman 2 | Statement of K. Sethuraman dated 31 July 2014 |
| Shared Network | <i>Shared Network Services Limited v Nextira One Limited [2011] EWHC 1574 (Comm)</i> |
| Singh 1 | Statement of Dr Rajendra Singh dated 19 February 2012 |

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| Singh 2 | Reply statement of Rajendra Singh dated 24 March 2014 |
| Sir Chunillal | <i>Steel Authority of India Limited v Gupta</i> (2009) 10 SCC 63 |
| Statement of Claim | Devas' Statement of Claim dated 20 February 2012 |
| Statement of Defence | Antrix's Statement of Defence dated 15 November 2013 |
| Secretariat | Secretariat of the ICC Court |
| State of Kerala | <i>Mary v State of Kerala</i> 2013 (13) S.C.A.L.E. 151, C.A. No. 9466 of 2003 |
| Telcom Devas | Telcom Devas Mauritius Ltd |
| TRAI | Telecom Regulatory Authority of India |
| UCRF | Upfront Capacity Reservation Fees |
| UK | United Kingdom |
| USA | United States of America |
| Viswanathan 1 | Statement of Ramachandran Viswanathan dated 20 February 2012 |
| Viswanathan 2 | Statement of Ramachandran Viswanathan dated 20 February |
| WPC | Wireless Planning and Coordination wing of the DOT |